File Copy
09/466778

(FILE 'HOME' ENTERED AT 20:21:00 ON 19 OCT 2001)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, SCISEARCH' ENTERED AT 20:21:46 ON 19 OCT 2001

L1	4	S	FELL (W) PROTEIN
L2	492	S	HYALURONATE (P) (BINDING (W) PROTEIN)
L3	693	S	L2 OR HABP
L4	0	S	L3 AND FELL
L5	0	S	L1 AND L3
L6	158	S	L3 AND CD44
L7	3	S	L6 AND PRECURSOR
L8	0	S	L3 AND ((CD44 (S) PRECURSOR))
L9	3	DUP REM	L1 (1 DUPLICATE REMOVED)
L10	104	DUP REM	L6 (54 DUPLICATES REMOVED)
L11	3	DUP REM	L7 (0 DUPLICATES REMOVED)

STN updated

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	0	FRLL adj protein	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/10/19 20:40			0
2	BRS	L7	0	FELL adj protein	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/10/19 20:40			0
3	BRS	L13	28	HABP or (hyaluronate adj binding adj protein)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/10/19 20:43			0
4	BRS	L19	0	L13 and (FELL adj protein)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/10/19 20:43			0

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09/466778
EAST updated

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
5	BRS	L25	4	L13 and CD$$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/10/19 20:44		Truncation Overflow. Return string from Server is: 5`0`0`CD$	1
6	BRS	L32	0	L13 and (CD44 adj precursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/10/19 20:45			0
7	BRS	L26	8	L13 and CD44	USPAT; US-PGPUB; EPO; JPO; DERWENT	2001/10/19 20:45			0

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09/466778
Updated Search

Connecting via Winsock to STN

Trying 3106016892...Open

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LOGINID:SSSPTA1600RXM
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Dec 17	The CA Lexicon available in the CAPLUS and CA files
NEWS 3	Feb 06	Engineering Information Encompass files have new names
NEWS 4	Feb 16	TOXLINE no longer being updated
NEWS 5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS 6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS 7	May 07	DGENE Reload
NEWS 8	Jun 20	Published patent applications (A1) are now in USPATFULL
NEWS 9	JUL 13	New SDI alert frequency now available in Derwent's DWPI and DPCI
NEWS 10	Aug 23	In-process records and more frequent updates now in MEDLINE
NEWS 11	Aug 23	PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
NEWS 12	Aug 23	Adis Newsletters (ADISNEWS) now available on STN
NEWS 13	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS 14	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS 15	Oct 09	Number of Derwent World Patents Index updates increased
NEWS 16	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File

NEWS EXPRESS	August 15 CURRENT WINDOWS VERSION IS V6.0c, CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
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NEWS INTER	General Internet Information
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NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 20:21:00 ON 19 OCT 2001

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=> file biosis caplus embase medline scisearch
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.15       0.15

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FILE 'MEDLINE' ENTERED AT 20:21:46 ON 19 OCT 2001

FILE 'SCISEARCH' ENTERED AT 20:21:46 ON 19 OCT 2001
COPYRIGHT (C) 2001 Institute for Scientific Information (ISI) (R)

=> s FELL (w) protein
L1            4 FELL (W) PROTEIN

=> s hyaluronate (p) (binding (w) protein)
L2          492 HYALURONATE (P) (BINDING (W) PROTEIN)

=> s L2 or HABP
L3          693 L2 OR HABP

=> s L3 and FELL
L4            0 L3 AND FELL

=> s L1 and L3
L5            0 L1 AND L3

=> s L3 and CD44
L6          158 L3 AND CD44

=> s L6 and precursor
L7            3 L6 AND PRECURSOR

=> s L3 and ((CD44 (s) precursor))
L8            0 L3 AND ((CD44 (S) PRECURSOR))

=> dup rem L1
PROCESSING COMPLETED FOR L1
L9            3 DUP REM L1 (1 DUPLICATE REMOVED)

=> dup rem L6
PROCESSING COMPLETED FOR L6
L10         104 DUP REM L6 (54 DUPLICATES REMOVED)

=> dup rem L7
PROCESSING COMPLETED FOR L7
L11           3 DUP REM L7 (0 DUPLICATES REMOVED)
```

=> dis L9 1-3 ibib kwic

L9 ANSWER 1 OF 3 SCISEARCH COPYRIGHT 2001 ISI (R)
ACCESSION NUMBER: 95:22685 SCISEARCH
THE GENUINE ARTICLE: PY294
TITLE: THE DNA-ACTIVATED PROTEIN-KINASE IS REQUIRED FOR THE PHOSPHORYLATION OF REPLICATION PROTEIN-A DURING SIMIAN-VIRUS-40 DNA-REPLICATION
AUTHOR: BRUSH G S; ANDERSON C W; KELLY T J (Reprint)
CORPORATE SOURCE: JOHNS HOPKINS UNIV, SCH MED, DEPT MOLEC BIOL & GENET, BALTIMORE, MD, 21205 (Reprint); JOHNS HOPKINS UNIV, SCH MED, DEPT MOLEC BIOL & GENET, BALTIMORE, MD, 21205; BROOKHAVEN NATL LAB, DEPT BIOL, UPTON, NY, 11973
COUNTRY OF AUTHOR: USA
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (20 DEC 1994) Vol. 91, No. 26, pp. 12520-12524.
ISSN: 0027-8424.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 32
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB . . . during simian virus 40 DNA replication in vitro. To explore the functional significance of this modification, we purified a HeLa **fell protein** kinase that phosphorylates RPA in the presence of single-stranded DNA. By several criteria we identified the purified enzyme as a. . .

L9 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 1
ACCESSION NUMBER: 1980:230290 BIOSIS
DOCUMENT NUMBER: BA70:22786
TITLE: PANCREATIC SECRETORY RESPONSE TO CHOLECYSTOKININ PANCREOZYMIN AND CAERULEIN IN THE CONSCIOUS RAT.
AUTHOR(S): LAUGIER R; PAPP A; DEMOL P; CHARBIT J-J; SARLES H
CORPORATE SOURCE: UNITE RECH. PATHOL. DIG. UNITE 31, INST. NATL. SANTE RECH. MED., BLVD. DE LA GAYE, F-13009 MARSEILLE, FR.
SOURCE: PFLUEGERS ARCH EUR J PHYSIOL, (1980) 384 (1), 83-92.
CODEN: PFLABK. ISSN: 0031-6768.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB. . . per h strongly inhibited volume flow and outputs of all the ions, and the sum of the concentrations of anions **fell**. **Protein** concentration and output increased with the same time course in response to both CCK and caerulein, i.e., a sustained stimulation. . .

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1964:78523 CAPLUS
DOCUMENT NUMBER: 60:78523
ORIGINAL REFERENCE NO.: 60:13805c-e
TITLE: The effect of naphthaleneacetic acid and maleic hydrazide on nitrogen metabolism of apricot flower buds
AUTHOR(S): Udvardy, J.
SOURCE: Acta Botan. Acad. Sci. Hung. (1963), 9(3-4), 455-60
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Apricot flower buds following deep dormancy react to early warm periods with activated metabolism and thus become frost-susceptible. Treatments with naphthaleneacetic acid (I) and maleic hydrazide (II), known to delay bud growth, were studied. Buds of severed shoots were grouped: (1) stored at 0.degree., or (2) subjected to a 3-stage (in 15 days) rise in temp. to 20.degree., (3) soaked before final temp. increase in I (1-200 mg./l.) for 0.5 hr. at 30.degree., or (4) in II (10-200 mg./l.). Changes in dry wt., N fractions, and sprouting follow. In (1), no change occurred. In (2), dry wt. decreased 50%, total N rose 23%, alc.-sol. N at first rose and then fell 50% below the control, sol. protein N rose 27%, and 95% of the buds swelled. In (3), 1-25 mg./l. allowed some increase in water uptake, total N rose 44%, sol. N **fell**, **protein** N rose, and bud growth was not reduced. With 100-200 mg./l., however, water uptake dropped 40% and total N 21%, sol. N rose 20% (synthesis inhibition), and protein N fell; buds were inhibited 69 and 80%. In (4), water uptake dropped 22-47%, total N fell 12-24%, sol. N rose 18-81%, and sol. protein N dropped 8-37% with inhibition of synthesis and probable proteolysis. Above 50 mg. II/l. no bud growth occurred.

=> dis L11 1-3 ibib kwic

L11 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:457103 CAPLUS
DOCUMENT NUMBER: 133:103710
TITLE: Novel hyaluronan-binding proteins and encoding genes
INVENTOR(S): Hastings, Gregg A.; Liau, Gene; Tsifrina, Elena
PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA; American Red Cross
SOURCE: PCT Int. Appl., 457 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000039166	A1	20000706	WO 1999-US30462	19991220
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1141025	A1	20011010	EP 1999-964307	19991220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1998-113871 P 19981223
WO 1999-US30462 W 19991220

AB The present invention relates to full-length WF-**HABP**, WF-**HABP**, OE-**HABP**, and BM-**HABP**, novel members of the hyaluronan receptor family. The invention provides isolated nucleic acid mols. encoding human to full-length WF-**HABP**, WF-

HABP, OE-**HABP**, and BM-**HABP** receptors. Full-length WF-**HABP**, WF-**HABP**, OE-**HABP**, and BM-**HABP** polypeptides are also provided, as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of full-length WF-**HABP**, WF-**HABP**, OE-**HABP**, and BM-**HABP** receptor activity. Also provided are diagnostic methods for detecting disease states related to the aberrant expression of full-length WF-**HABP**, WF-**HABP**, OE-**HABP**, and BM-**HABP** receptors. Further provided are therapeutic methods for treating disease states including, but not limited to, proliferative conditions, metastasis, inflammation, ischemia, host defense dysfunction, immune surveillance dysfunction, arthritis, multiple sclerosis, autoimmunity, immune dysfunction, and allergy.

IT **CD44** (antigen)
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(BM-**HABP**; hyaluronan-binding proteins and encoding genes for screening agonists and antagonists for treating metastasis, inflammation, ischemia, allergy, etc.)

IT **CD44** (antigen)
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OE-**HABP**; hyaluronan-binding proteins and encoding genes for screening agonists and antagonists for treating metastasis, inflammation, ischemia, allergy, etc.)

IT **CD44** (antigen)
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(WF-**HABP**; hyaluronan-binding proteins and encoding genes for screening agonists and antagonists for treating metastasis, inflammation, ischemia, allergy, etc.)

IT 103715-96-4, Glycoprotein (chicken cartilage link **precursor** protein moiety reduced) 202017-83-2 281684-73-9
RL: PRP (Properties)
(unclaimed protein sequence; novel hyaluronan-binding proteins and encoding genes)

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1993:189643 CAPLUS
DOCUMENT NUMBER: 118:189643
TITLE: A novel secretory tumor necrosis factor-inducible protein (TSG-6) is a member of the family of **hyaluronate binding proteins**, closely related to the adhesion receptor **CD44**
AUTHOR(S): Lee, Tae H.; Wisniewski, Hans Georg; Vilcek, Jan
CORPORATE SOURCE: Kaplan Cancer Cent., New York Univ., New York, NY, 10016, USA
SOURCE: J. Cell Biol. (1992), 116(2), 545-57
CODEN: JCLBA3; ISSN: 0021-9525

DOCUMENT TYPE: Journal
LANGUAGE: English
TI A novel secretory tumor necrosis factor-inducible protein (TSG-6) is a member of the family of **hyaluronate binding proteins**, closely related to the adhesion receptor **CD44**
AB TSG-6 cDNA was isolated by differential screening of a .lambda. cDNA library prepd. from tumor necrosis factor (TNF)-treated human diploid FS-4 fibroblasts. The TSG-6 mRNA was not detectable in untreated cells, but became readily induced by TNF in normal human fibroblast lines and in peripheral blood mononuclear cells. In contrast, TSG-6 mRNA was undetectable in either control or TNF-treated human vascular endothelial cells and a variety of tumor-derived or virus-transformed cell lines. The sequence of full-length TSG-6 cDNA revealed one major open reading frame predicting a polypeptide of 277 amino acids, including a typical cleavable signal peptide. The N-terminal half of the predicted TSG-6 protein sequence shows a significant homol. with a region implicated in **hyaluronate** binding, present in cartilage link protein, proteoglycan core proteins, and the adhesion receptor **CD44**. The most extensive sequence homol. exists between the predicted TSG-6 protein and **CD44**. Western blot anal. with an antiserum raised against a TSG-6 fusion protein detected a 39-kD glycoprotein in the supernatants of TNF-treated FS-4 cells and of cells transfected with TSG-6 cDNA. Binding of the TSG-6 protein to **hyaluronate** was demonstrated by copptn. Apparently, the inflammatory cytokine (TNF or IL-1)-inducible, secretory TSG-6 protein is a novel member of the family of **hyaluronate binding proteins**, possibly involved in cell-cell and cell-matrix interactions during inflammation and tumorigenesis.
ST tumor necrosis factor inducible protein hyaluronate; **CD44** antigen monokine inducible protein
IT Antigens
RL: BIOL (Biological study)
(**CD44**, tumor necrosis factor-inducible secretory protein homol. to, of humans)
IT 145000-10-8, Glycoprotein TSG-6 (human clone .lambda.5 tumor necrosis factor-induced **precursor** protein moiety reduced) 145000-11-9, Glycoprotein TSG-6 (human clone .lambda.5 tumor necrosis factor-induced protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of, complete)

L11 ANSWER 3 OF 3 MEDLINE
ACCESSION NUMBER: 89156962 MEDLINE
DOCUMENT NUMBER: 89156962 PubMed ID: 2466108
TITLE: Glial **hyaluronate-binding protein** in polar spongioblastoma.
AUTHOR: Bignami A; Adelman L S; Perides G; Dahl D
CORPORATE SOURCE: Department of Pathology, Harvard Medical School, Boston, MA.
CONTRACT NUMBER: NS 13034 (NINDS)
SOURCE: JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY, (1989 Mar) 48 (2) 187-96.
Journal code: JBR; 2985192R. ISSN: 0022-3069.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198904
ENTRY DATE: Entered STN: 19900306
Last Updated on STN: 19970203
Entered Medline: 19890407

TI Glial **hyaluronate-binding protein** in polar spongioblastoma.

AB . . . well as reactive GFA protein-positive astrocytes were GHA protein-negative. We suggest that polar spongioblastoma derives from a GHA protein-positive glial **precursor** and pertinent to this suggestion is the observation that the periventricular germinal layer was found GHA protein-positive in a 22-week. . .

CT Check Tags: Human; Male; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.
Antibodies, Monoclonal: DU, diagnostic use
Antigens, CD44
*Astrocytoma: ME, metabolism
*Brain Neoplasms: ME, metabolism
*Carrier Proteins: ME, metabolism
Fetus: ME, metabolism
Immunoblotting
Middle Age
*Neuroglia:. . .

CN 0 (Antibodies, Monoclonal); 0 (Antigens, **CD44**); 0 (Carrier Proteins)

=> dis L10 50-60 ibib kwic

L10 ANSWER 50 OF 104 MEDLINE
ACCESSION NUMBER: 93140194 MEDLINE
DOCUMENT NUMBER: 93140194 PubMed ID: 7678658
TITLE: Versican, a hyaluronate-binding proteoglycan of embryonal precartilaginous mesenchyma, is mainly expressed postnatally in rat brain.
AUTHOR: Bignami A; Perides G; Rahemtulla F
CORPORATE SOURCE: Spinal Cord Injury Research Laboratory, Department of Veterans Affairs Medical Center, Boston, MA 02132.
CONTRACT NUMBER: DE 08466 (NIDCR)
NS 13034 (NINDS)
SOURCE: JOURNAL OF NEUROSCIENCE RESEARCH, (1993 Jan) 34 (1) 97-106.
Journal code: KAC; 7600111. ISSN: 0360-4012.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199302
ENTRY DATE: Entered STN: 19930312
Last Updated on STN: 20000303
Entered Medline: 19930224

AB The localization of versican, a large **hyaluronate**-binding fibroblast proteoglycan, was studied in rat prenatal and postnatal development. In adult rat white matter and cerebellum, the distribution of versican was identical to that previously reported for brain-specific

glial **hyaluronate-binding protein** (GHAP).
Versican was also found in gray matter where it formed characteristic coats around large neurons. It was also found. . . perineuronal coats were first observed on day 21 in the cerebral cortex. It is concluded that, with the exception of **hyaluronate**, brain extracellular matrix (ECM) is mainly produced postnatally and that the ECM protein produced by brain cells, most likely astrocytes,. . .

CT Check Tags: Animal; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.
Animals, Newborn
Antigens, CD44
*Brain: ME, metabolism
Carrier Proteins: ME, metabolism
*Cartilage: EM, embryology
Fluorescent Antibody Technique
Hyaluronic Acid: ME, metabolism
Immunoblotting

. . .

CN 0 (Antigens, **CD44**); 0 (Carrier Proteins); 0 (Proteochondroitin Sulfates); 0 (Receptors, Cell Surface)

L10 ANSWER 51 OF 104 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 17
ACCESSION NUMBER: 1993:647814 CAPLUS
DOCUMENT NUMBER: 119:247814
TITLE: A glycoprotein expressed by human fibrous astrocytes is a **hyaluronate-binding protein** and a member of the **CD44** family
AUTHOR(S): Da Cruz, L. A. G.; Cruz, T. F.; Moscarello, M. A.
CORPORATE SOURCE: Dep. Biochem., Hosp. Sick Child., Toronto, ON, M5G 1X8, Can.
SOURCE: Cell Adhes. Commun. (1993), 1(1), 9-20
CODEN: CADCEF; ISSN: 1061-5385
DOCUMENT TYPE: Journal
LANGUAGE: English

TI A glycoprotein expressed by human fibrous astrocytes is a **hyaluronate-binding protein** and a member of the **CD44** family

AB The authors isolated and characterized an antigen from normal human brain called p80, which migrated with an Mr of 80 kDa on SDS PAGE. The Mr of 80 kDa consists of a protein of about 55-60 kDa and carbohydrate (20-25 kDa). The carbohydrate is almost entirely of the N-linked type, although a small amt. of O-linked carbohydrate was detected. Cross-reactivity with monoclonal antibodies A3D8 and A1G3 showed that p80 could therefore be considered an isoform of the **CD44** adhesion mols. In addn., specific binding to hyaluronate which was not competed for by proteoglycan demonstrated that it involved different sites than the proteoglycan binding sites. Fucoidan and dextran sulfate increased the binding by 200-250% while chondroitin sulfate C also increased the binding but to a lesser extent. Heparin, heparan sulfate and chondroitin sulfates A and B did not have such an effect. The binding of p80 to hyaluronate was pH dependent with a max. at pH 6.4. Thus, p80 is an astrocyte-specific adhesion mol.

ST glycoprotein p80 astrocyte hyaluronate **CD44** antigen

IT Multiple sclerosis
(glycoprotein p80 of fibrous astrocyte as **hyaluronate-binding protein** in relation to)
IT Glycoproteins, specific or class
RL: BIOL (Biological study)
(80,000-mol.-wt., as **hyaluronate-binding protein**, of fibrous astrocyte)
IT Antigens
RL: BIOL (Biological study)
(**CD44**, glycoprotein p80 as member of family of, of fibrous astrocyte)
IT Neuroglia
(fibrous astroglia, glycoprotein p80 of, as **hyaluronate-binding protein**)

L10 ANSWER 52 OF 104 MEDLINE
ACCESSION NUMBER: 93016276 MEDLINE
DOCUMENT NUMBER: 93016276 PubMed ID: 1383238
TITLE: Hyaluronan-binding protein in endothelial cell morphogenesis.
AUTHOR: Banerjee S D; Toole B P
CORPORATE SOURCE: Department of Anatomy and Cellular Biology, Tufts University School of Medicine, Boston, Massachusetts 02111.
CONTRACT NUMBER: DE-05838 (NIDCR)
HD-23681 (NICHD)
SOURCE: JOURNAL OF CELL BIOLOGY, (1992 Nov) 119 (3) 643-52.
Journal code: HMV; 0375356. ISSN: 0021-9525.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199211
ENTRY DATE: Entered STN: 19930122
Last Updated on STN: 20000303
Entered Medline: 19921125
AB . . . be involved in endothelial cell behavior. We have recently characterized a mAb, mAb IVd4, that recognizes and neutralizes HA-binding protein (**HABP**) from a wide variety of cell types from several different species (Banerjee, S. D., and B. P. Toole. 1991. Dev.. . . of
their lamellipodia. Treatment with high concentrations of HA hexamer causes loss of immunoreactivity from these structures. We conclude that **HABP** recognized by mAb IVd4 is involved in endothelial cell migration and tubule formation.
CT Check Tags: Animal; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Antibodies, Monoclonal
Antigens, CD44
Aorta
Capillaries: PH, physiology
Carrier Proteins: AN, analysis
*Carrier Proteins: PH, physiology
Cattle
Cell Movement
Cells, Cultured
*Endothelium,. . .
CN 0 (Antibodies, Monoclonal); 0 (Antigens, **CD44**); 0 (Carrier Proteins); 0 (Oligosaccharides)

L10 ANSWER 53 OF 104 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 18
ACCESSION NUMBER: 1992:139093 BIOSIS
DOCUMENT NUMBER: BA93:73318
TITLE: A NOVEL SECRETORY TUMOR NECROSIS FACTOR-INDUCIBLE PROTEIN TSG-6 IS A MEMBER OF THE FAMILY OF **HYALURONATE BINDING PROTEINS** CLOSELY RELATED TO THE ADHESION RECEPTOR **CD44**.
AUTHOR(S): LEE T H; WISNIEWSKI H-G; VILCEK J
CORPORATE SOURCE: DEP. MICROBIOL., N.Y. UNIV. MED. CENT., NEW YORK, N.Y. 10016.
SOURCE: J CELL BIOL, (1992) 116 (2), 545-558.
CODEN: JCLBA3. ISSN: 0021-9525.
FILE SEGMENT: BA; OLD
LANGUAGE: English
TI A NOVEL SECRETORY TUMOR NECROSIS FACTOR-INDUCIBLE PROTEIN TSG-6 IS A MEMBER OF THE FAMILY OF **HYALURONATE BINDING PROTEINS** CLOSELY RELATED TO THE ADHESION RECEPTOR **CD44**.
AB. . . signal peptide. The NH2-terminal half of the predicted TSG-6 protein sequence shows a significant homology with a region implicated in **hyaluronate** binding, present in cartilage link protein, proteoglycan core proteins, and the adhesion receptor **CD44**. The most extensive sequence homology exists between the predicted TSG-6 protein and **CD44**. Western blot analysis with an antiserum raised against a TSG-6 fusion protein detected a 39-kD glycoprotein in the supernatants of TNF-treated FS-4 cells and of cells transfected with TSG-6 cDNA. Binding of the TSG-6 proteins to **hyaluronate** was demonstrated by coprecipitation. Our data indicate that the inflammatory cytokine (TNF or IL-1)-inducible, secretory TSG-6 protein is a novel member of the family of **hyaluronate binding proteins**, possibly involved in cell-cell and cell-matrix interactions during inflammation and tumorigenesis.

L10 ANSWER 54 OF 104 SCISEARCH COPYRIGHT 2001 ISI (R)
ACCESSION NUMBER: 92:313950 SCISEARCH
THE GENUINE ARTICLE: HU165
TITLE: H-CAM EXPRESSION IN THE HUMAN NERVOUS-SYSTEM - EVIDENCE FOR A ROLE IN DIVERSE GLIAL INTERACTIONS
AUTHOR: VOGEL H (Reprint); BUTCHER E C; PICKER L J
CORPORATE SOURCE: STANFORD UNIV, MED CTR, SCH MED, DEPT PATHOL, STANFORD, CA, 94305; VET ADM MED CTR, PALO ALTO, CA, 94304
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF NEUROCYTOLOGY, (MAY 1992) Vol. 21, No. 5, pp. 363-373.
ISSN: 0300-4864.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 47
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB H-CAM (**CD44**/Hermes antigen) is an 85-95 kDa widely-distributed cell surface adhesion molecule that participates in diverse cellular interactions. It is an important. . .
STP KeyWords Plus (R): CELL-ADHESION MOLECULES; **HYALURONATE-BINDING PROTEIN**; LYMPHOCYTE HOMING RECEPTORS; MONOCLONAL-ANTIBODIES; HUMAN-BRAIN; SURFACE GLYCOPROTEIN; WHITE MATTER;

ANTIGEN; **CD44**; IDENTIFICATION

L10 ANSWER 55 OF 104 MEDLINE
ACCESSION NUMBER: 92316183 MEDLINE
DOCUMENT NUMBER: 92316183 PubMed ID: 1377637
TITLE: The extracellular matrix of rat spinal cord: a comparative study on the localization of hyaluronic acid, glial **hyaluronate-binding protein**, and chondroitin sulfate proteoglycan.
AUTHOR: Bignami A; Asher R; Perides G
CORPORATE SOURCE: Department of Pathology, Harvard Medical School, Boston, Massachusetts 02155.
CONTRACT NUMBER: NS 13034 (NINDS)
SOURCE: EXPERIMENTAL NEUROLOGY, (1992 Jul) 117 (1) 90-3.
Journal code: EQF; 0370712. ISSN: 0014-4886.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199208
ENTRY DATE: Entered STN: 19920815
Last Updated on STN: 19960129
Entered Medline: 19920804

TI The extracellular matrix of rat spinal cord: a comparative study on the localization of hyaluronic acid, glial **hyaluronate-binding protein**, and chondroitin sulfate proteoglycan.

AB The localization of hyaluronic acid (HA), glial **hyaluronate-binding protein** (GHAP), and chondroitin sulfate (CS) proteoglycan was compared in cryostat sections of rat spinal cord. HA, GHAP, and CS proteoglycan. . .

CT Check Tags: Animal; Comparative Study; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.
Antigens, CD44
*Carrier Proteins: AN, analysis
*Extracellular Matrix: UL, ultrastructure
*Hyaluronic Acid: AN, analysis
Immune Sera
Immunohistochemistry
*Nerve Tissue Proteins:. . .

CN 0 (Antigens, **CD44**); 0 (Carrier Proteins); 0 (Immune Sera); 0 (Nerve Tissue Proteins); 0 (Proteochondroitin Sulfates); 0 (glial **hyaluronate-binding protein**)

L10 ANSWER 56 OF 104 MEDLINE
ACCESSION NUMBER: 92303336 MEDLINE
DOCUMENT NUMBER: 92303336 PubMed ID: 1376955
TITLE: Some observations on the localization of hyaluronic acid in
adult, newborn and embryonal rat brain.
AUTHOR: Bignami A; Asher R
CORPORATE SOURCE: Department of Pathology, Harvard Medical School, Boston, Massachusetts.
CONTRACT NUMBER: NS 13034 (NINDS)
SOURCE: INTERNATIONAL JOURNAL OF DEVELOPMENTAL NEUROSCIENCE, (1992)
10 (1) 45-57.
Journal code: 126; 8401784. ISSN: 0736-5748.
PUB. COUNTRY: ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199207
ENTRY DATE: Entered STN: 19920731
Last Updated on STN: 19980206
Entered Medline: 19920722

AB . . . cryostat sections of brain and spinal cord obtained from adult, newborn and embryonal rat. The sections were incubated with glial **hyaluronate-binding protein** (GHAP) of human origin and the protein was visualized by indirect immunofluorescence with monoclonal antibodies raised to human GHAP and. . . glycoprotein, approximately 60,000 molecular weight, which is structurally related to the HA-binding region of cartilage ECM proteins. The distribution of **hyaluronate** in adult brain white matter and cerebellar cortex was similar to that previously reported for GHAP. In both cases, the reaction product formed a mesh surrounding myelinated axons and granule cells. **Hyaluronate** was also found in parts of the brain that did not contain GHAP. A finely reticulated mesh was observed in. . . large bulbar reticular neurons and dentate nucleus of cerebellum. The only part of the brain which appeared relatively free of **hyaluronate** was the molecular layer of the cerebellum. In newborn and embryonal rat, the densely packed cell bodies in cerebral gray matter, periventricular germinal layer and external granular layer of cerebellum were surrounded by **hyaluronate**. Small droplets of **hyaluronate** were observed in between the cylindrical epithelial cells lining the neural tube in 11 day embryos. Non-myelinated fiber tracts and the molecular layer of the developing cerebellum were relatively unstained. No **hyaluronate** was detected in the ependyma lining the cerebral ventricles and the central canal of the spinal cord.

CT Check Tags: Animal; Female; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.
*Animals, Newborn: ME, metabolism
Antigens, CD44
*Brain: EM, embryology
*Brain Chemistry: PH, physiology
Carrier Proteins: ME, metabolism
Cerebellar Cortex: ME, metabolism
Cerebral Cortex: AH,. . .

CN 0 (Antigens, **CD44**); 0 (Carrier Proteins); EC 3.2.1.35 (Hyaluronoglucosaminidase)

L10 ANSWER 57 OF 104 MEDLINE
ACCESSION NUMBER: 91282778 MEDLINE
DOCUMENT NUMBER: 91282778 PubMed ID: 1711848
TITLE: Evidence for autophosphorylation of **hyaluronate binding protein** and its enhanced phosphorylation in rat histiocytoma.
AUTHOR: Babu B R; Gupta S; Datta K
CORPORATE SOURCE: Biochemistry Laboratory, School of Environmental Sciences Jawaharlal Nehru University, New Delhi, India.
SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1991 Jun 28) 177 (3) 1291-8.
Journal code: 9Y8; 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199107
ENTRY DATE: Entered STN: 19910818
Last Updated on STN: 19970203
Entered Medline: 19910731

TI Evidence for autophosphorylation of **hyaluronate binding protein** and its enhanced phosphorylation in rat histiocytoma.

AB This report documents for the first time the in vitro autophosphorylation of purified 68 kDa **hyaluronate binding protein** in presence of [32P] ATP. The rate of phosphorylation is proportional to the concentration of protein and to the time. . . western blot analysis with antiphosphotyrosine antibodies, we have confirmed that the phosphorylation occurs at tyrosine residues. Immunoprecipitation with anti HA **binding protein** antibody shows a 5 fold increase in the phosphorylation in macrophage histiocytoma compared to normal macrophage. Supplementing **hyaluronate** with **hyaluronate binding protein** in the medium is further shown to enhance total protein phosphorylation in rat histiocytoma.

CT Check Tags: Animal; Support, Non-U.S. Gov't
*Adenosine Triphosphate: ME, metabolism
Antibodies
Antigens, CD44
Carrier Proteins: IP, isolation & purification
*Carrier Proteins: ME, metabolism
Cell Line
Electrophoresis, Polyacrylamide Gel
*Fibroma: ME, metabolism
. . .

CN 0 (Antibodies); 0 (Antigens, **CD44**); 0 (Carrier Proteins); 0 (Phosphates)

L10 ANSWER 58 OF 104 MEDLINE
ACCESSION NUMBER: 91154308 MEDLINE
DOCUMENT NUMBER: 91154308 PubMed ID: 1705559
TITLE: Hyaluronan and a cell-associated hyaluronan binding protein regulate the locomotion of ras-transformed cells.
AUTHOR: Turley E A; Austen L; Vandeligt K; Clary C
CORPORATE SOURCE: Department of Pediatrics, University of Manitoba, Winnipeg, Canada.
SOURCE: JOURNAL OF CELL BIOLOGY, (1991 Mar) 112 (5) 1041-7.
Journal code: HMV; 0375356. ISSN: 0021-9525.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199104
ENTRY DATE: Entered STN: 19910428
Last Updated on STN: 19970203
Entered Medline: 19910408

AB Hyaluronan (HA) and one of its cell binding sites, fibroblast hyaluronan binding protein (**HABP**), is shown to contribute to the regulation of 10T1/2 cell locomotion that contain an EJ-ras-metallothionein (MT-1) hybrid gene. Promotion of. . . to stimulate locomotion back to the original, acute rate, and the ability of an mAb specific to a 56-kD

fibroblast **HABP** to block locomotion. Further, both HA and **HABP** products are regulated by induction of the ras gene. The effect of exogenous HA is blocked by HABR, is dose-dependent. . . resides in its glycosaminoglycan chain. Uninduced cells are not affected by HA, HABR, or mAb and production of HA or **HABP** is not altered during the experimental period. These results suggest that ras-transformation activates an HA/**HABP** locomotory mechanism that forms part of an autocrine motility mechanism. Reliance of induced cells on HA/**HABP** for locomotion is transient and specific to the induced state.

CT Check Tags: Support, Non-U.S. Gov't
Antigens, CD44
*Carrier Proteins: ME, metabolism
Cell Line, Transformed
*Cell Movement
*Cell Transformation, Neoplastic
Chondroitin Sulfates: PD, pharmacology
Cloning, Molecular
. . .
CN 0 (Antigens, **CD44**); 0 (Carrier Proteins)

L10 ANSWER 59 OF 104 MEDLINE
ACCESSION NUMBER: 91303851 MEDLINE
DOCUMENT NUMBER: 91303851 PubMed ID: 1712867
TITLE: Rapid assay of hyaluronic acid in serum.
AUTHOR: Kondo T; Chichibu K; Usuki H; Matsuura T; Shichijo S; Yokoyama M M
CORPORATE SOURCE: Diagnostics Technology Labs, Chugai Pharmaceutical Co., Ltd., Tokyo.
SOURCE: RINSHO BYORI. JAPANESE JOURNAL OF CLINICAL PATHOLOGY, (1991
May) 39 (5) 536-40.
Journal code: KIV; 2984781R. ISSN: 0047-1860.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199108
ENTRY DATE: Entered STN: 19910908
Last Updated on STN: 19960129
Entered Medline: 19910819

AB A method for measurement of hyaluronic acid (HA) level in serum was developed based on using "hyaluronic acid binding protein" (**HABP**)-coated polystyrene beads. After the beads and test serum being mixed, the mixture was incubated together with reaction buffer for 2 hours, and then the beads were washed. Subsequently, biotinylated **HABP** was added to the washed beads and incubated for 1 hour. Then peroxidase-conjugated avidin was added to the mixture and. . .

CT Check Tags: Human
Adult
Aged
Aged, 80 and over
Antigens, CD44
Arthritis, Rheumatoid: BL, blood
Carrier Proteins: DU, diagnostic use
*Hyaluronic Acid: BL, blood
Methods
Middle Age

Osteoarthritis: BL,. . .
CN 0 (Antigens, **CD44**); 0 (Carrier Proteins)

L10 ANSWER 60 OF 104 MEDLINE
ACCESSION NUMBER: 91311713 MEDLINE
DOCUMENT NUMBER: 91311713 PubMed ID: 1713274
TITLE: Extracellular matrix of central nervous system white matter: demonstration of an hyaluronate-protein complex.
AUTHOR: Asher R; Perides G; Vanderhaeghen J J; Bignami A
CORPORATE SOURCE: Department of Pathology, Harvard Medical School, Boston, Massachusetts.
CONTRACT NUMBER: NS 13034 (NINDS)
SOURCE: JOURNAL OF NEUROSCIENCE RESEARCH, (1991 Mar) 28 (3) 410-21.
Journal code: KAC; 7600111. ISSN: 0360-4012.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199108
ENTRY DATE: Entered STN: 19910913
Last Updated on STN: 19990129
Entered Medline: 19910829

AB Monoclonal antibodies were raised against human glial **hyaluronate -binding protein** (GHAP), a major CNS-specific glycoprotein known to bind **hyaluronate** in vitro. Frozen sections of dog and human spinal cord were digested with Streptomyces hyaluronidase in order to ascertain whether GHAP is bound to **hyaluronate** in vivo. Digestion with hyaluronidase, prior to staining of the sections by conventional indirect immunofluorescence, led to a drastic reduction. . . Chondroitinase ABC (protease-free) was also effective in bringing about the release of GHAP from tissue sections. This enzyme also degrades **hyaluronate**. The effects of the chondroitinase were completely reversed by the addition of 1 mM Zn2+, a known inhibitor of this. . . Dog GHAP was isolated from spinal cord by means of ion exchange and affinity chromatography. This protein bound efficiently to **hyaluronate** in vitro. Dog and human GHAP had identical isoelectric points and similar peptide maps but different molecular weights. Dog GHAP (70 kD) was larger than its human counterpart (60 kD). These findings imply that GHAP exists in association with **hyaluronate** in CNS white matter. Immunoelectron microscopy revealed that GHAP fills the space between myelin sheaths in dog spinal cord white matter. One is led to conclude therefore that an **hyaluronate** based extracellular matrix exists in CNS white matter.

CT . . . Tags: Animal; Female; Human; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.
Amidohydrolases: PD, pharmacology
Antibodies, Monoclonal: DU, diagnostic use
Antigens, CD44
Biological Markers
*Carrier Proteins: AN, analysis
Carrier Proteins: IM, immunology
Cattle
Chondroitin Lyases: PD, pharmacology
*Extracellular Matrix: CH,. . .

CN 0 (Antibodies, Monoclonal); 0 (Antigens, **CD44**); 0 (Biological Markers); 0 (Carrier Proteins); EC 3.2.1.35 (Hyaluronoglucosaminidase);
EC 3.5. (Amidohydrolases); EC 3.5.1.52 (peptide-N4-(N-acetyl-beta-glucosaminyl)asparagine amidase); EC 4.2.2.- (Chondroitin Lyases)

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(FILE 'HOME' ENTERED AT 20:21:00 ON 19 OCT 2001)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, SCISEARCH' ENTERED AT 20:21:46 ON 19 OCT 2001

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L1            4 S FELL (W) PROTEIN
L2          492 S HYALURONATE (P) (BINDING (W) PROTEIN)
L3          693 S L2 OR HABP
L4            0 S L3 AND FELL
L5            0 S L1 AND L3
L6          158 S L3 AND CD44
L7            3 S L6 AND PRECURSOR
L8            0 S L3 AND ((CD44 (S) PRECURSOR))
L9            3 DUP REM L1 (1 DUPLICATE REMOVED)
L10         104 DUP REM L6 (54 DUPLICATES REMOVED)
L11           3 DUP REM L7 (0 DUPLICATES REMOVED)
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STN INTERNATIONAL LOGOFF AT 20:36:12 ON 19 OCT 2001

File Copy
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09/466778

US-CL-CURRENT: 536/23.5,536/24.31

US-PAT-NO: 6025138
DOCUMENT-IDENTIFIER: US 6025138 A
TITLE: Method for detecting the presence of a polynucleotide encoding a hyaluronan receptor expressed in human umbilical vein endothelial cells
DATE-ISSUED: February 15, 2000
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hawkins; Phillip R.	Mountain View	CA	N/A	N/A
Wilde; Craig G.	Sunnyvale	CA	N/A	N/A
Seilhamer; Jeffrey J.	Los Altos Hills	CA	N/A	N/A

US-CL-CURRENT: 435/6,536/23.5 ,536/24.31
ABSTRACT:

The present invention provides nucleotide and amino acid sequences that identify and encode the hyaluronan receptor (hr) from human umbilical vein endothelial cells. The present invention also provides for antisense molecules
to the nucleotide sequences which encode hr, expression vectors for the production of purified HR, antibodies capable of binding specifically to HR, hybridization probes or oligonucleotides for detecting the upregulation of HR encoding nucleotide sequences, genetically engineered host cells for the expression of HR, diagnostic tests for activated, angiogenic, inflamed or metastatic cells and/or tissues based on HR-encoding nucleic acid molecules and
antibodies capable of binding specifically to the receptor.

CLAIMS:

We claim:

1. A method for detecting the presence of a polynucleotide comprising SEQ ID NO:1 in a sample containing nucleic acids, the method comprising the steps of:

(a) contacting the nucleic acid of the sample with a polynucleotide having a sequence complementary to SEQ ID NO:1 under conditions suitable for formation of a double-stranded nucleic acid complex; and

(b) detecting the presence of the complex, wherein the presence of the complex correlates with the presence of the polynucleotide comprising SEQ ID NO:1 in the sample.

2. The method of claim 1, further comprising the steps of:

(a) analyzing the sample to determine the amount of complex present; and

(b) comparing the amount of complex present to a standard value, whereby, if the amount of hybridization complex is larger than the standard value, the presence of inflammation or disease is indicated.

2 Claims, 2 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

US-CL-CURRENT: 514/2,514/4 ,514/61

US-PAT-NO: 5902795
DOCUMENT-IDENTIFIER: US 5902795 A
TITLE: Oligosaccharides reactive with hyaluronan-binding protein and their methods of use
DATE-ISSUED: May 11, 1999
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Toole; Bryan P.	Watertown	MA	N/A	N/A
Banerjee; Shib D.	Melrose	MA	N/A	N/A

US-CL-CURRENT: 514/54,514/2 ,514/4 ,514/61

ABSTRACT:
Hyaluronan-binding protein (HABP) is expressed on the cell surface during tumor cell and endothelial cell migration and during capillary-like tubule formation. Monoclonal antibodies and hyaluronan oligosaccharides are described
which specifically recognize HABP and can be used to (1) inhibit tumor growth by preventing tumor vascularization, (2) inhibit tumor cell migration and (3) image tumors.

CLAIMS:

What is claimed is:

1. A method of inhibiting the growth of a tumor in a mammal, comprising administering an anti-tumor quantity of a hyaluronan oligosaccharide to the mammal having the tumor.

2. The method of claim 1, wherein said oligosaccharide is a tetradecasaccharide.

3. The method of claim 1, wherein said oligosaccharide is a hexasaccharide.

4. A method of inhibiting tumor metastasis in a mammal, comprising administering an anti-metastatic quantity of a hyaluronan oligosaccharide to the mammal having the tumor.

5. The method of claim 4, wherein said oligosaccharide is a tetradecasaccharide.

6. The method of claim 4, wherein said oligosaccharide is a hexasaccharide.

7. A pharmaceutical composition for treating a mammal afflicted with a tumor, comprising a hyaluronan oligosaccharide coupled to a cytotoxic agent.

8. The pharmaceutical composition of claim 7, wherein said hyaluronan

oligosaccharide is a tetradecasaccharide.

9. The pharmaceutical composition of claim 7, wherein said cytotoxic agent is methotrexate.

10. The pharmaceutical composition of claim 7, wherein said cytotoxic agent is
diphtheria toxin.

11. A pharmaceutical composition for treating a mammal afflicted with a tumor,
comprising a hyaluronan oligosaccharide coupled to a cytokine.

12. The pharmaceutical composition of claim 11, wherein said hyaluronan oligosaccharide is a tetradecasaccharide.

13. The pharmaceutical composition of claim 11, wherein said cytokine is selected from the group consisting of tumor necrosis factor, interferon and interleukin 2.

14. A method for treating a mammal afflicted with a tumor, comprising:

a) excising the tumor from the body site;

b) administering to the body site where the tumor was excised an anti-tumor quantity of a hyaluronan oligosaccharide.

15. The method of claim 14, wherein said oligosaccharide is a tetradecasaccharide.

16. The method of claim 14, wherein said anti-tumor quantity of said hyaluronan oligosaccharide is from about 50 .mu.g/ml to about 5 mg/ml.

17. The method of claim 14, wherein said oligosaccharide is a hexasaccharide.

18. A method of inhibiting growth of a tumor in a mammal, comprising administering to the mammal an anti-tumor quantity of a hyaluronan oligosaccharide wherein said oligosaccharide has between 1 and 16 disaccharide units.

19. The method of claim 18, wherein said oligosaccharide has between 3 and 7 disaccharide units.

20. The method of claim 18 wherein said tumor is a glioma or ovarian cancer.

21. A method of inhibiting growth of a tumor in a patient, comprising administering to the patient an anti-tumor quantity of a hyaluronan oligosaccharide.

22. The method of claim 21, wherein said oligosaccharide has between 1 and 16 disaccharide units.

23. The method of claim 21, wherein said oligosaccharide has between 3 and 7 disaccharide units.

24. The method of claim 21, wherein said oligosaccharide is a tetradecasaccharide.

25. The method of claim 21, wherein said oligosaccharide is a hexasaccharide.

26. A method of inhibiting tumor metastasis in a mammal, comprising administering to the mammal an anti-metastatic quantity of a hyaluronan oligosaccharide wherein said oligosaccharide has between 1 and 16 disaccharide units.

27. The method of claim 26, wherein said oligosaccharide has between 3 and 7 disaccharide units.

28. The method of claim 26 wherein said tumor is a glioma or ovarian cancer.

29. A method of inhibiting tumor metastasis in a patient, comprising administering to the patient an anti-metastatic quantity of a hyaluronan oligosaccharide.

30. The method of claim 29, wherein said oligosaccharide has between 1 and 16 disaccharide units.

31. The method of claim 29, wherein said oligosaccharide has between 3 and 7 disaccharide units.

32. The method of claim 29, wherein said oligosaccharide is a tetradecasaccharide.

33. The method of claim 29, wherein said oligosaccharide is a hexasaccharide.

34. A method for treating a mammal with a tumor, comprising:

a) excising the tumor from the body site;

b) administering to the mammal an anti-tumor quantity of a hyaluronan oligosaccharide wherein said oligosaccharide has between 1 and 16 disaccharide units.

35. The method of claim 34, wherein said oligosaccharide has between 3 and 7 disaccharide units.

36. The method of claim 34 wherein said tumor is a glioma or ovarian cancer.

37. A method for treating a patient a tumor, comprising:

a) excising the tumor from the body site;

b) administering to the patient an anti-tumor quantity of a hyaluronan oligosaccharide.

38. The method of claim 37, wherein said oligosaccharide has between 1 and 16 disaccharide units.

39. The method of claim 37, wherein said oligosaccharide has between 3 and 7 disaccharide units.

40. The method of claim 37, wherein said oligosaccharide is a tetradecasaccharide.

41. The method of claim 37, wherein said oligosaccharide is a hexasaccharide.

41 Claims, 26 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 10

US-CL-CURRENT: 435/252.3,435/254.11 ,435/320.1 ,435/325 ,536/23.2

US-PAT-NO: 5827721
DOCUMENT-IDENTIFIER: US 5827721 A
TITLE: BH55 hyaluronidase
DATE-ISSUED: October 27, 1998
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stern; Robert	San Francisco	CA	N/A	N/A
Frost; Gregory I.	San Francisco	CA	N/A	N/A
Hall; Jackson	San Francisco	CA	N/A	N/A
Shuster; Svetlana	San Francisco	CA	N/A	N/A
Colbern; Gail T.	Pacifica	CA	N/A	N/A
Formby; Bent	Santa Barbara	CA	N/A	N/A

US-CL-CURRENT: 435/201,435/252.3 ,435/254.11 ,435/320.1 ,435/325 ,536/23.2

ABSTRACT:
The invention features a purified hyaluronidase BH55 polypeptide isolated from a mammalian species, preferably bovine or human. The invention also features DNA encoding BH55, vectors and transformed host cells containing DNA encoding BH55, methods of making BH55 hyaluronidase polypeptides, and antibodies that specifically bind BH55.

CLAIMS:

What is claimed is:

1. An isolated DNA molecule encoding bovine BH55 hyaluronidase.

2. An isolated DNA molecule, or degenerate variants thereof, encoding bovine BH55 hyaluronidase.

3. The DNA molecule of claim 1, wherein said DNA molecule is operably linked to regulatory sequences for expression of said BH55 hyaluronidase; and

wherein said regulatory sequences comprise a promoter.

4. A vector comprising the DNA molecule of claim 1.

5. A cultured transformed cell which contains the DNA molecule of claim 1.

6. A method of producing a BH55 hyaluronidase comprising:

culturing a cell transformed with a DNA molecule encoding a BH55 hyaluronidase under conditions for expressing said DNA molecule, said DNA molecule being positioned for expression in said cell; and

isolating said BH55 hyaluronidase.

7. The DNA molecule of claim 1, wherein the BH55 hyaluronidase comprises the amino acid sequence GPXPIYHIQEAVL (SEQ ID NO:1).

8. The DNA molecule of claim 1, wherein the BH55 hyaluronidase comprises the amino acid sequences

a) Val-Leu-Xaa-Arg-Glu-Pro-Ala-Gly-Ala-Val-Ile-Xaa-Gly-Tyr-Gly-Thr-Pro-Arg-Al a-Thr-Val-Thr-Val-Thr-Leu-Xaa-Arg (SEQ ID NO: 2);

b) Gly-Pro-Ser-Ala-His-Ser-Val-Leu (SEQ ID NO: 3);

c) Met-Lys-Lys-Gly-Thr-Arg-Val-Lys-Xaa-Asp-Ser-Asn (SEQ ID NO: 4);

d) Lys-Pro-Gly-Gly-Pro (SEQ ID NO: 5); and

e) Xaa-Val-Phe-Gln-Val-Phe-Val-Ala-Xaa-Gly-Glu-Leu (SEQ ID NO: 6);

where Xaa represents any one of the twenty naturally-occurring amino acids.
8 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

US-CL-CURRENT: 435/201,514/12 ,514/912

US-PAT-NO: 5747027
DOCUMENT-IDENTIFIER: US 5747027 A
TITLE: BH55 hyaluronidase
DATE-ISSUED: May 5, 1998
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stern; Robert	San Francisco	CA	N/A	N/A
Frost; Gregory I.	San Francisco	CA	N/A	N/A
Hall; Jackson	San Francisco	CA	N/A	N/A
Shuster; Svetlana	San Francisco	CA	N/A	N/A
Formby; Bent	Santa Barbara	CA	N/A	N/A
Colbern; Gail T.	Pacifica	CA	N/A	N/A

US-CL-CURRENT: 424/94.62,435/201 ,514/12 ,514/912
ABSTRACT:
The invention features a purified hyaluronidase BH55 polypeptide isolated from a mammalian species, preferably bovine or human. The invention also features DNA encoding BH55, vectors and transformed host cells containing DNA encoding BH55, the methods of making BH55 hyaluronidase polypeptides, and the antibodies that specifically bind BH55.

CLAIMS:

What is claimed is:

1. A bovine BH55 hyaluronidase having hyaluronic acid-specific .beta.-1,4-endoglycosidase activity, which hyaluronidase is free from the proteins and naturally occurring organic molecules with which it is naturally associated.

2. The hyaluronidase of claim 1, wherein said hyaluronidase contains the amino
acid sequence GPXPIYHIQEAVL (Seq. ID No.: 1).

3. The hyaluronidase of claim 1, wherein said hyaluronidase has a molecular weight of about 55 kDa, as determined by 12.5% non-reducing SDS-polyacrylamide gel electrophoresis.

4. An injectable formulation comprising:

a) a therapeutically effective amount of a bovine BH55 hyaluronidase, which hyaluronidase is free from the proteins and naturally occurring organic molecules with which it is naturally associated; and

b) a pharmaceutically acceptable, injectable carrier.

5. The injectable formulation of claim 4, wherein the BH55 hyaluronidase

polypeptide is modified to effect an increase in serum half-life relative to the serum half-life of an unmodified BH55 hyaluronidase.
5 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

US-CL-CURRENT: 435/252.3,435/254.11 ,435/320.1 ,435/325 ,536/23.5 ,536/24.31

US-PAT-NO: 5635370
DOCUMENT-IDENTIFIER: US 5635370 A
TITLE: DNA encoding BEHAB, a brain hyaluronan-binding protein, and recombinant
expression systems for production of BEHAB polypeptides
DATE-ISSUED: June 3, 1997
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hockfield; Susan	North Haven	CT	N/A	N/A
Jaworski; Diane M.	New Haven	CT	N/A	N/A

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ABSTRACT:
A gene encoding mammalian brain enriched hyaluronan binding (BEHAB) protein is isolated and characterized from brain tissue and found to have a high degree
of sequence homology to members of the proteoglycan tandem repeat family of hyaluronan binding proteins. Unlike other members of the family, however, the expression of the gene is restricted to the central nervous system. BEHAB is expressed in markedly increased levels in human glioma tissue, so that the polypeptide can be used as a marker for diagnostic purposes.

CLAIMS:

We claim:

1. An isolated nucleic acid molecule comprising a sequence selected from the group consisting of:

(a) the sequence of a genomic DNA clone or a cDNA encoding a brain-enriched hyaluronan-binding (BEHAB) protein, wherein said DNA or cDNA is isolated from a
mammalian brain library, and wherein the noncoding strand of said DNA or cDNA hybridizes under stringent conditions with a DNA probe having the sequence shown as nucleotides 251 to 1363 of SEQ ID NO: 1 or the sequence shown as nucleotides 270 to 1403 of SEQ ID NO: 2;

(b) a sequence degenerate with the sequence of (a); and

(c) a sequence complementary to the full length of the nucleic acid of (a) or (b).

2. A nucleic acid molecule according to claim 1 which is DNA.

3. A nucleic acid molecule according to claim 1 which is RNA.

4. A nucleic acid molecule according to claim 1 which encodes a rat BEHAB protein.

5. A nucleic acid molecule according to claim 1 which encodes a cat BEHAB protein.

6. A nucleic acid molecule according to claim 1 which encodes a human BEHAB protein.

7. A nucleic acid molecule according to claim 1 which is a cDNA.

8. A nucleic acid molecule according to claim 1 which is a genomic DNA clone.

9. An expression vector comprising the sequence of a nucleic acid molecule according to claim 1.

10. A host cell transformed or transfected with a nucleic acid according to claim 1.

11. A host cell transformed or transfected with an expression vector according
to claim 9.

12. A process for preparing a mammalian BEHAB protein, comprising the steps of:

providing a host cell according to claim 10; and

culturing the host cell under conditions suitable for the expression of said nucleic acid.

13. A process for preparing a mammalian BEHAB protein, comprising the steps of:

providing a host cell according to claim 11; and

culturing the host cell under conditions suitable for the expression of said nucleic acid.

14. A process according to claim 12, further comprising the step of recovering
said BEHAB protein.

15. A process according to claim 13, further comprising the step of

recovering
said BEHAB protein.

16. An isolated DNA molecule comprising the sequence shown as nucleotides 251 to 1363 of SEQ ID NO: 1.

17. An isolated DNA molecule comprising the sequence shown as nucleotides 270 to 1403 of SEQ ID NO: 2.

18. An isolated DNA molecule comprising the sequence shown as nucleotides 1 to
156 of SEQ ID NO: 7.

19. A vector comprising DNA having the sequence of a DNA molecule according to
claim 16.

20. A vector comprising DNA having the sequence of a DNA molecule according to
claim 17.

21. A vector comprising DNA having the sequence of a DNA molecule according to
claim 18.

22. A host cell transformed or transfected with a vector according to claim 19.

23. A host cell transformed or transfected with a vector according to claim 20.

24. A host cell transformed or transfected with a vector according to claim 21.

24 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2